APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,297	06/28/2001	Joachim Sachs	P13611-US1	7602

27045	7590	02/27/2006

ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR C11
PLANO, TX 75024

EXAMINER
DAVIS, CYNTHIA L

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/894,297	SACHS ET AL.
	Examiner	Art Unit	
	Cynthia L. Davis	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 December 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,2 and 17-27</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,2 and 17-27</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1.   Applicant's election without traverse of Group 1 in the reply filed on 12/22/2005 is

acknowledged.

Response to Arguments

2.   Applicant's arguments with respect to claims have been considered but are moot

in view of the new ground(s) of rejection.

Regarding claims 1 and 17, the claim language does not state that the lower

layer and the physical layer are different. The claim language merely requires that the

transmission be handled on a lower layer than the timer.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

3.   Claims 1, 17, 18, 20, and 26-27 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Noneman in view of Hunt.

Regarding claim 1, initiating a transmission caused by a control procedure of the

lower layer is disclosed in Noneman, column 1, lines 27-32 (transmission is initiated by

a connection being established at the physical layer). Detecting the start of a

transmission by the lower protocol layer is disclosed in Noneman, column 1, lines 37-38

(frames are sent by the physical layer). Notifying the upper protocol layer by the lower

protocol layer when a transmission is started, and synchronizing at least one timer of

the upper protocol layer according to the notification is disclosed in column 1, lines 34-

40 (the timer is related to resource allocation, which is a higher layer than the physical

layer; it is reset when a frame is sent by the physical layer): That the initiated

transmission has a variable channel access delay is missing from Noneman. However,

Hunt discloses in column 1, lines 22-29, stations transmitting with random (variable)

channel access delays in order to resolve channel access conflicts. It would have been

obvious to one skilled in the art at the time of the invention to use a variable channel

access delay in the system of Noneman. The motivation would be to use a well-known

method for resolving conflicts among various users of a single channel.

Regarding claim 17, Means for initiating a transmission caused by a control

procedure of the lower layer is disclosed in Noneman, column 1, lines 27-32

(transmission is initiated by a connection being established at the physical layer).

Means for detecting the start of a transmission by the lower protocol layer is disclosed in

Noneman, column 1, lines 37-38 (frames are sent by the physical layer). Means for

notifying the upper protocol layer by the lower protocol layer when a transmission is

started, and means for synchronizing at least one timer of the upper protocol layer

according to the notification is disclosed in column 1, lines 34-40 (the timer is related to

resource allocation, which is a higher layer than the physical layer; it is reset when a

frame is sent by the physical layer). That the initiated transmission has a variable

channel access delay is missing from Noneman. However, Hunt discloses in column 1,

lines 22-29, stations transmitting with random channel access delays in order to resolve

channel access conflicts. It would have been obvious to one skilled in the art at the time

of the invention to use a variable channel access delay in the system of Noneman. The

motivation would be to use a well-known method for resolving conflicts among various users of a single channel.

Regarding claim 18, at least one of a user equipment and a network node is disclosed in column 1, lines 27-30 (disclosing a base station, or network node, and mobile stations, or user equipment).

Regarding claim 20, a notification being sent at the start of a transmission or at the end of a delay is disclosed in Noneman, column 1, lines 37-38 (the timer is notified when a frame is sent).

Regarding claim 26, the upper protocol layer is a radio link control sub-layer of a data link layer is disclosed in Noneman, column 3, lines 25-28 (the network is a radio linked network with a radio link control sublayer that allocates resources to mobile users).

Regarding claim 27, the transmission is performed on a channel that can be shared by at least one of a plurality of several users and data flows is disclosed in Noneman, column 3, lines 25-28 (the system is a typical radiotelephone system, which typically has a plurality of mobile users and data flows).

4.   Claims 2, 19, and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noneman in view of Hunt in further view of Pasternak.

Regarding claims 2 and 19, the timer models a measure of time selected from the group consisting of round-trip time and a back-off time is missing from Noneman. However, Pasternak discloses in column 9, lines 28-30, a timer that models a back-off time. It would have been obvious to one skilled in the art at the time of the invention to

use the timer of Pasternak in the structure of Noneman. The motivation would be to use

a well known contention algorithm to resolve collisions (Pasternak, column 9, lines 20-

22).

Regarding claim 21, a total channel access delay comprises at least two

separate components and a notification is sent between the at least two separate

components is missing from Noneman. However, Pasternak discloses in column 9,

lines 10-12 that the ST's and the base station communicate as to queue status, which

would involve notifying the base station regarding delay. It would have been obvious to

one skilled in the art at the time of the invention to have the mobile and BST of

Noneman communicate as to queue status. The motivation would be to allow the BST

to consider the queue status in prioritizing grants (Pasternak, column 9, lines 10-12).

Regarding claim 22, the channel access delay includes a component of arbitrary

length and at least one of a notification and a scheduling is performed before the

component of arbitrary length is missing from Noneman. However, Pasternak discloses

in column 9, lines 26-28 that the choice of a randomly chosen slot gives the delay an

arbitrary component. It would have been obvious to one skilled in the art at the time of

the invention to have a random delay component in the system of Noneman. The

motivation would be to use a well known contention algorithm to resolve collisions

(Pasternak, column 9, lines 20-22).

Regarding claim 23, a scheduling process is finished immediately before the

scheduled data packets are transmitted is missing from Noneman. However, Pasternak

discloses in column 9, lines 23-30 that the scheduling occurs before transmission. It

would have been obvious to one skilled in the art at the time of the invention to schedule

the packets before transmission in the system of Noneman. The motivation would be to

use a well known contention algorithm to resolve collisions (Pasternak, column 9, lines

20-22).

Regarding claim 24, a notification is a primitive is missing from Noneman.

However, Pasternak discloses this in column 8, lines 35 (the MAC is made of up

primitives). It would have been obvious to one skilled in the art at the time of the

invention to use primitives in the system of Noneman. The motivation would be to use

primitives to describe functions implemented in the hardware of the system (Pasternak,

column 8, lines 33-37).

Regarding claim 25, the lower protocol layer is a medium access control sub-

layer of a data link layer is missing from Noneman. However, Pasternak discloses a

MAC in column 8, lines 7-13, and figure 10. It would have been obvious to one skilled

in the art at the time of the invention to include a MAC in the system of Noneman. The

motivation would be to have an interface for the network.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.
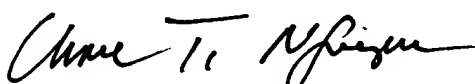
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia L. Davis whose telephone number is (571) 272-3117. The examiner can normally be reached on 8:30 to 6, Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CLD
2/14/2006

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600